

14.(NEW) The stator element of claim 13, characterized in that said pole piece (1) has an elongate shape in a direction parallel to the machine axis, with a length approximately twice the length of the coil core part (3) in the same direction, the flux-conducting section (2) being perpendicular to the pole piece (1) as well as the coil core part (3), and being attached to an end of each respective thereof, in such a manner that said pole piece (1) and said coil core part (3) both point in the same direction.

15.(NEW) The stator element of claim 13, characterized in that said coil core part (3) has an angular span of  $360^\circ/n$  in the rotation direction,  $n$  indicating the number of peripherally juxtaposed stator elements that together can constitute a complete stator part.

16.(NEW) The stator element of claim 13, characterized in that it is shaped from pressure-formed and heat-treated iron powder material.

17.(NEW) A stator part for use in a rotating electric machine that is preferably of the transverse flux type, characterized in that it is constituted by a number  $n$  of stator elements of the type indicated in claim 13, arranged in an annular structure so that  $n$  parallel pole pieces (1) point finger-like in a direction parallel to the rotation axis of the machine and are situated radially on the outside or in the inside, while the corresponding  $n$  coil core parts (3) are situated radially on the inside or on the outside to constitute

together at least part of a coil core, and all  $n$  flux-conducting sections (2) are situated on the same axial side of the coil core.

18.(NEW) A stator part use in a rotating electric machine that is preferably of the transverse flux type, comprising an annular structure consisting of a coil core ring to support an annular coil (4) with a radial and an axial extent, a flux-conducting area extending radially from a coil core ring edge to a radial position somewhat past the radial extent of the coil (4), a number  $n$  of separate pole pieces (11, 21) extending in an axial direction from the flux-conducting area at said radial position thereof and in a direction back across the coil (4), characterized in that said annular structure (11, 21, 12, 22, 13, 23) is constituted by an assembly of several peripherally juxtaposed and separately manufactured stator elements, each being an integral solid unit having at least one pole piece (11, 21), one flux-conducting section (12, 22) for every pole piece, all of these  $n$  sections (12, 22) constituting together said flux-conducting area, and one coil core part (13, 23) said coil core parts (13, 23) laying closely adjacent to each other and constituting together said coil core ring, and in that every flux-conducting section (12, 22) is shaped in such a manner that there is a clear opening between neighboring sections all the way from the coil core part (13, 23) to the pole piece (11, 21).

19.(NEW) The stator part of claim 18, characterized in that the pole pieces (11) are arranged radially on the outside, whereby the machine is of the type having an external rotor.

20.(NEW) The stator part of claim 18, characterized in that the pole pieces (21) are arranged radially on the inside, whereby the machine is of the type having an internal rotor.

21.(NEW) The stator part of claim 18, characterized in that every stator element is shaped from iron powder material that is press cast and heat treated.

22.(NEW) A stator for use in a rotating electric machine that is preferably of the transverse flux type, comprising at least one pair of annular stator parts and at least one coil (4), two stator parts in a pair being arranged axially juxtaposed on the same axis and having pole pieces (1, 11, 21) pointing in opposite directions and in between each other in a regular and interleaved manner, so as to form equally large, open flux gaps between all  $2n$  pole pieces (1, 11, 21), and the coil (4) being situated in an annular space formed between the two stator parts in the pair, characterized in that the stator parts are like and of a type such as stated in claim 17, the coil core parts (3, 13, 23) together constituting a core for the coil (4), insulated from the coil (4) by means of a substantially annular support structure (28) for the stator part.

23.(NEW) The stator of claim 22, characterized in that the pole pieces (1, 11) are arranged radially on the outside, whereby the machine is of the type having an external rotor.

24.(NEW) The stator of claim 22, characterized in that the pole pieces (21) are arranged radially on the inside, whereby the machine is of the type having an internal rotor.

25.(NEW) The stator element of claim 14, characterized in that said coil core part (3) has an angular span of  $360^\circ/n$  in the rotation direction, n indicating the number of peripherally juxtaposed stator elements that together can constitute a complete stator part.

26.(NEW) The stator element of claim 14, characterized in that it is shaped from pressure-formed and heat-treated iron powder material.

27.(NEW) The stator element of claim 15, characterized in that it is shaped from pressure-formed and heat-treated iron powder material.

28.(NEW) A stator part for use in a rotating electric machine that is preferably of the transverse flux type, characterized in that it is constituted by a number n of stator elements of the type indicated in claim 14, arranged in an annular structure so that n

parallel pole pieces (1) point finger-like in a direction parallel to the rotation axis of the machine and are situated radially on the outside or in the inside, while the corresponding  $n$  coil core parts (3) are situated radially on the inside or on the outside to constitute together at least part of a coil core, and all  $n$  flux-conducting sections (2) are situated on the same axial side of the coil core.

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29.(NEW) A stator part for use in a rotating electric machine that is preferably of the transverse flux type, characterized in that it is constituted by a number  $n$  of stator elements of the type indicated in claim 15, arranged in an annular structure so that  $n$  parallel pole pieces (1) point finger-like in a direction parallel to the rotation axis of the machine and are situated radially on the outside or in the inside, while the corresponding  $n$  coil core parts (3) are situated radially on the inside or on the outside to constitute together at least part of a coil core, and all  $n$  flux-conducting sections (2) are situated on the same axial side of the coil core.

30.(NEW) A stator part for use in a rotating electric machine that is preferably of the transverse flux type, characterized in that it is constituted by a number  $n$  of stator elements of the type indicated in claim 16, arranged in an annular structure so that  $n$  parallel pole pieces (1) point finger-like in a direction parallel to the rotation axis of the machine and are situated radially on the outside or in the inside, while the corresponding  $n$  coil core parts (3) are situated radially on the inside or on the outside to constitute

together at least part of a coil core, and all  $n$  flux-conducting sections (2) are situated on the same axial side of the coil core.

31.(NEW) The stator part of claim 19, characterized in that every stator element is shaped from iron powder material that is press cast and heat treated.

32.(NEW) The stator part of claim 20, characterized in that every stator element is shaped from iron powder material that is press cast and heat treated.

*A' cond.*  
33.(NEW) A stator for use in a rotating electric machine that is preferably of the transverse flux type, comprising at least one pair of annular stator parts and at least one coil (4), two stator parts in a pair being arranged axially juxtaposed on the same axis and having pole pieces (1, 11, 21) pointing in opposite directions and in between each other in a regular and interleaved manner, so as to form equally large, open flux gaps between all  $2n$  pole pieces (1, 11, 21), and the coil (4) being situated in an annular space formed between the two stator parts in the pair, characterized in that the stator parts are like and of a type such as stated in claim 18, the coil core parts (3, 13, 23) together constituting a core for the coil (4), insulated from the coil (4) by means of a substantially annular support structure (28) for the stator part.